

ABSTRACT

A hydrodynamic bearing for use in a spindle motor, having a shaft, a bearing sleeve encompassing the shaft with a small radial space, and a skewback at one end face of the bearing sleeve which is fixedly connected to the bearing sleeve. The shaft features a thrust plate or a conical or cone-like extension at its end face which faces the skewback. The diameter of the conical extension increases in the direction of the end face of the shaft. A bearing gap formed between the shaft and the bearing sleeve is filled with a bearing fluid. Dynamic pressure generating grooves are provided on one of the outer surface of the shaft and the inner surface of the bearing sleeve to generate an excess pressure in the bearing fluid.